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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,407	04/08/2004	Steven A. Johnson	21763.NP	8433
20551 7590 07/21/2009 THORPE NORTH & WESTERN, LLP. P.O. Box 1219 SANDY, UT 84091-1219				
EXAMINER SELKIN, SAUREL J				
ART UNIT		PAPER NUMBER		
3768				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/821,407

Applicant(s)

JOHNSON ET AL.

Examiner

SAUREL J. SELKIN

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28, 36-68 and 77-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 23-27, 36-39, 41-59, 61-68 and 84 is/are rejected.
- 7) ☒ Claim(s) 22, 28, 40 and 60 is/are objected to.
- 8) ☒ Claim(s) 77-83 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Cancellation of claims 29-35 and 69-76 has been noted and entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1, 25, 27, 59, 65, 66 are rejected under 35 U.S.C. 102(a) as being anticipated by Shehada (US 2004/0064046).

Shehada discloses a bath 108 configured to contain a medium; transducer arrays [0046], disposable in the bath, configured to transmit and receive ultrasound signals; a horizontal table 103, disposable over the bath, configured to receive the patient thereon, having an aperture formed in the table and positionable over the bath configured to receive the breast of the patient pendent therethrough; and the table and the bath being linearly vertically displaceable with respect to one another between a lowered position where the table is adjacent the bath configured to position the breast within the bath, and a raised position where the table is spaced-above the bath configured to elevate the breast above the bath ([0055], fig. 1) and means for maintaining the table in the raised position with the table spaced-above the bath (fig. 1). Shehada also discloses an armature carrying the transducer array and a motor for displacing the transducer in the

transducer in a rotational and linear direction ([0022], fig. 1) and a drain pump 124 for draining the bath.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 2, 3, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Shelby et al (US 6,544,186, henceforth referred to as Shelby'186).

Shehada discloses the apparatus substantially as claimed but fails to disclose a column and a motor to move the table.

Shelby'186 discloses a table 209 for positioning a patient during a medical procedure comprising at least one column to support the table and a motor 244 for moving the table in a vertical direction (fig. 11) and a motor 246 for driving the device in a horizontal direction.

It would have been obvious to one having ordinary skill in the art at the time of invention to modify Shehada's apparatus by providing a support column and a motor for moving the table, as taught by Shelby et al, in order to enable the repositioning of the patient while the patient is still on the table.

3. Claims 4, 42, 61 rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Marmarelis (US 2004/0082856).

Shehada discloses the apparatus substantially as claimed but fails to disclose table inserts with different aperture sizes.

Marmarelis discloses a breast scanning system being provided with inserts to accommodate various sized breasts [0035].

It would have been obvious to one having ordinary skill in the art at the time of invention to modify Shehada's apparatus by providing inserts of different aperture sizes and a radius formed around the aperture in the table, as taught by Marmarelis, in order to enable breasts of different sizes to be secured to the table.

4. Claims 5-11, 13-15, 16, 43, 44, 45, 46, 47, 48, 49, 50-54, 56, 58, 62, 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Gardineer et al. (US 4,282,880, henceforth referred to as Gardineer).

Shehada discloses the apparatus substantially as claimed but fails to disclose a precondition tank and means for transferring preconditioned liquid to the tank, a radius formed in the table around the table aperture and means for receiving the upper portion of the bath and a channel around the edges of the bath.

Gardineer discloses a preconditioning tank and means for transferring liquid from the preconditioning tank to the bath (abstract, col. 4, l. 24-68), a heater and means for determining the temperature (abstract, col. 2, l. 67 - col. 3, l. 32 and col. 4, l. 50-55), a de-gasser ("de- bubbling subsystem" col. 3, l. 12-19), a circulation pump (see col. 3, l. 9-15 and col. 4, l. 24-68), a radius formed in the table around the table aperture and means for receiving the upper portion of the bath (fig. 7, 8, 10) and providing a channel 24 around the edges of the bath for catching overflow from the bath. Gardineer also discloses a reservoir 72 containing an antibacterial or antiviral agent, a pump for dispensing the agent (col. 11 lines 40-68) and a heater 46 and thermocouple for controlling the temperature of the liquid in the bath 154 (col. 10 lines 38-68).

It would have been obvious to one having ordinary skill in the art at the time of invention to modify Shehada's apparatus by providing a preconditioning container and means to transfer liquid to the tank, a radius formed in the table around the table aperture and means for receiving the upper portion of the bath and an overflow channel,

as taught by Gardineer, in order to allow user to get the liquid to its desired state prior to transfer to the tank and control fluid overflow from the tank.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Gardineer as applied to claim 8 above, and further in view of Shiue et al (US 6,795,298, henceforth referred to as Shiue).

The Shehada and Gardineer combination discloses the apparatus substantially as claimed but fails to disclose a de-ionizer (abstract).

It would have been obvious to one having ordinary skill in the art at the time of invention to modify the apparatus of the Shehada and Gardineer combination by providing a de-ionizer for removal of impurities from the liquid in the tank.

6. Claims 16, 17, 23, 55, 56, 63, 64, 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Gardineer as applied to claim 15 above, and further in view of Shelby et al (US 2003/0097066, henceforth referred to as Shelby'066).

The Shehada and Gardineer combination discloses the apparatus substantially as claimed but fails to disclose a liquid sensor or a seal and a laser pointer for illuminating an area of interest.

Shelby'066 discloses a breast scanning system comprising a liquid sensor 150 for determining the presence of liquid at a certain level and providing seals to prevent

undesired fluid flow within the system [0048] and a laser pointer for illuminating an area of interest [0072].

It would have been obvious to one having ordinary skill in the art at the time of invention to modify the apparatus of the Shehada and Gardineer combination by providing a liquid sensor, a seal and a laser pointer for illuminating an area of interest, as taught by Shelby'066, in order to determine the presence of fluid at a certain level within the device.

Regarding the location of the sensor and seal, one of ordinary skill in the art at the time of invention would have recognized that the sensor and seal could be placed in any place within the system where the need to determine the presence of liquid or prevent fluid flow exists.

7. Claims 18, 57 rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view Shank et al (US 6,782,759, henceforth referred to as Shank).

Shehada discloses the apparatus substantially as claimed but fails to disclose a pinch sensor.

Shank discloses a pinch sensor for determining pinching of objects (abstract).

It would have been obvious to one having ordinary skill in the art at the time of invention to modify Shehada's apparatus to provide a pinch sensor for the protection of the user of the device.

8. Claims 19, 36, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Shelby (US 6,860,855).

Shehada discloses a bath 108 configured to contain a medium; transducer arrays [0046], disposable in the bath, configured to transmit and receive ultrasound signals; a horizontal table 103, disposable over the bath, configured to receive the patient thereon, having an aperture formed in the table and positionable over the bath configured to receive the breast of the patient pendent therethrough (fig. 1) and the table and the bath being linearly vertically displaceable with respect to one another between a lowered position where the table is adjacent the bath configured to position the breast within the bath, and a raised position where the table is spaced-above the bath configured to elevate the breast above the bath ([0055], fig. 1); and e) means for maintaining the table in the raised position with the table spaced-above the bath (fig. 1).

Shehada fails to disclose means for securing the breast within the bath.

Shelby discloses a system comprising a table 120 having an aperture 121 through which a breast can be positioned over a bath comprising means for securing the breast within the bath 131.

It would have been obvious to one having ordinary skill in the art at the time of invention to modify Shehada's apparatus by providing means for securing the breast into place, as taught by Shelby, in order to prevent the breast from moving during a procedure.

9. Claims 20, 21, 37, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Shelby as applied to claim 36 above, and further in view of Samuels (US 6,925,317).

The Shehada and Shelby combination discloses the apparatus substantially as claimed but fails to disclose magnets.

Samuels discloses the use of complementary magnetic surface portions in facilitating mating with an apparatus.

It would have been obvious to one having ordinary skill in the art to provide magnets, as taught by Samuels, in order to secure the breast to the apparatus.

Regarding claim 38, although Samuels fails to disclose the magnets comprising a beveled cup, one of ordinary skill in the art would have recognized that the magnet would have to be shaped in a manner to maximize the mating strength between the two magnets, including a beveled cup shape.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shehada in view of Gardineer et al (US 4,341,222, henceforth referred to as Gardineer'222).

Shehada discloses the apparatus substantially as claimed but fails to disclose a camera.

Gardineer'222 discloses a camera associated with the bath of a breast scanning system through the breast of a patient can be viewed (col. 4 lines 7-22).

It would have been obvious to one having ordinary skill in the art at the time of invention to modify Shehada's apparatus by providing a camera, as taught by Gardineer'222, in order to enable the visualization of the breast within the bath.

Allowable Subject Matter

11. Claims 22, 28, 40, 60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. Claims 77-83 are allowed.

Response to Arguments

13. Applicant's arguments with respect to claim1-28, 36-68, 77-84 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAUREL J. SELKIN whose telephone number is (571)270-3813. The examiner can normally be reached on Monday-Thursday 7:00 a.m.- 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J. S./
Examiner, Art Unit 3768

/Long V Le/
Supervisory Patent Examiner, Art Unit 3768